



SIGHT-SAVER BOOKS BY XEROGRAPHY

By Paul F. Thams and Fred L. Nowland

The office of the Oakland County, Michigan, Board of Education serves as the coordinating unit of an extensive county-wide Special Education program. It operates within the framework of state legal provisions to provide complete financial support to each of the twenty-nine local school districts offering programs for exceptional children. Eligible pupils from among the 165,000 public school children in the county are provided with the special educational services required for their success in school. An important phase of the program is the provisions which have been made for partially sighted children.

Within the county there are two types of programs for such children. The first of these is the special classroom, often called the 'sight saving room,' which contains instructional materials designed for each child's limited vision. Several such rooms exist within the county and provide excellent elementary education for the children enrolled. The second program is one in which the partially sighted child remains in his regular classroom and has the specialized material brought to him. The latter program, sometimes called an 'itinerant' program, has many advantages for those children who can profit by it, the chief one being that he attends school with his friends and studies exactly the same curriculum as they. The Oakland County Board of Education, plus several local school districts, employs a staff of teacher-counselors for the physically handicapped. These teacher-counselors serve on the itinerant program and provide the materials, equipment and counseling necessary to the child's successful participation, in addition to their other duties.

A serious difficulty in both programs has centered around the lack of availability of adequate large-type textbook material. This is especially true in the case of the itinerant program, since very often the texts in everyday use in schools are not available in the standard large-type editions. In the past this has meant that all textbook material was transcribed page by page by means of a large-type typewriter. Such an arrangement, of course,

proved to be not only laborious but unsatisfactory from several points of view:

1. The transcribing process was excessively expensive, both from the point of view of finances and of the secretarial time involved.
2. It was found to be very difficult to transcribe textbook materials for those students who were studying certain foreign languages, algebra and geometry.
3. The transcription method was unsatisfactory from a pedagogical point of view in that it was impossible to provide the material to children except on the basis of a few pages at a time. This proved to be a hindrance to the child's active and free participation in classroom activities and discussions, and lesson assignments.

Investigations into possible means of alleviating this situation eventually led to consideration of the Xerox process, by means of which each page of the actual text is microfilmed and subsequently enlarged by the Xerox electrostatic printing process. The enlarged pages are then bound and the student has available to him an enlarged reproduction of the actual book being used by his classmates. Several educational advantages accrue from this procedure. First, each partially sighted pupil in the program uses a reproduction of the book in use by the rest of the class. All page references, discussion and other uses of the books apply to the enlarged edition as well as to the regular book. Second, the material, when suitably bound, is sufficiently durable to permit its use for other children who might need it at a subsequent time. In this fashion an extensive library of large-type texts can gradually be built up. Third, in a very short space of time an entire textbook can be duplicated and presented to the student. Since he has the complete volume available to him from the beginning, it is possible for him to make full use of its possibilities. This applies especially to index references, which are an important part of many high school texts.

The cost of this service is considered by the authors to be well within the realm of reason when

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Actual size of type in a typical xerographic 'sight saver' book. Size of type varies somewhat from one book to another. University Microfilms is now prepared to make enlarged copies by special arrangements with publishers. Prices and samples upon application.

SIGHT-SAVER BOOKS

[from page 1]

one considers all factors, including expenses, involved in previous methods of providing typewritten material. Not only was the cost and labor required for secretarial reproduction excessive, but the finished copy was far from ideal from the educational point of view. To these factors of cost and quality must be added the fact that the ready availability of this material makes it possible to educate children in their regular classrooms rather than in special classrooms. There is, therefore, a very substantial saving in the cost of classroom space, equipment and professional help. The experience of the authors leads them to conclude that all but the most severely handicapped children can be educated successfully through the use of these materials.

Two comments regarding the material should be mentioned. First, it has been found that no more than 100 pages should be bound together in the finished bound volume. Volumes larger than this proved to be too large and heavy for easy handling by the pupils. This means that often several volumes are required to reproduce a single text. Second, it should be emphasized that the Oakland County Board of Education feels that this method of reproduction should be reserved only for those books which are not available in standard large-type editions. It is felt that material which is available from regular publishers of this material should be purchased from them.

In view of the preceding observation, the writers wish to say that the thoughts expressed herein should in no fashion be considered as critical of the very fine services available from those publishing houses which for years have provided large-type editions of standard texts. Their services have been invaluable, and should continue. What is expressed is the knowledge that the great variety of texts presently used by public schools, many of which are frequently revised, presents practical problems to publishers and printers who must be concerned with quantity reproduction. Xerographic processing permits a flexibility in this field which, in the opinion of the writers, has been heretofore impossible to achieve.

During the past years, the Special Education program in the County of Oakland has used 150 separate texts which have been converted to large-type editions by the Xerox process. It recognizes that there is more involved in educating the partially-seeing child than merely providing a special book. By the same token, experimentation in this field has opened educational possibilities which did not exist as recently as only a few years ago. □

[The authors of this report on sight-saver books have had wide experience in the field of special education. Dr. Thams is the Director of Special Education for Oakland County and received his Doctor of Philosophy degree from the University of Michigan.

Fred L. Nowland received his Master of Arts degree at the University of Michigan and is now working towards a doctorate at this institution. He has had 11 years' experience in the field of special education and is now co-ordinator of the teacher-counselor program for the physically handicapped in Oakland County.]

An experimental edition -
PIONEERS OF THE POTOWMACK

By H. P. Hobbs, Jr.

To quote from the title page in modified Old English, *Pioneers of the Potowmack* is "a Briefe Historie of ye Discoverie and Exploration of ye River Patawomeke, containing ye True and Remarkable Adventures of certayne Bolde Mariners, Missionaries, Traders, Settlers, and Rangers that ventured into ye Remotest Parts of that River, and what Dangers, Warrs, and Strange Occurrences befell them amongst ye Wilde and Salvage Indians thereof."

In ten chapters, with a Foreword and an Afterword, a Bibliography, eight maps, and 24 pen-and-ink illustrations—153 pages altogether—this little book tells the story of the Potomac River from the discovery of its mouth on Chesapeake Bay to the discovery of its source, "the head springs of Co-hongoroota," beyond the Allegheny mountains. Beginning with the Indians and Spaniards in the 16th century and ending just as young George Washington was about to go to work as a surveyor for Lord Fairfax, the book spans a period of more than 200 years, and is intended as "a prologue to the history of the Potomac River."

Written mainly for outdoor people of all ages, the book will (I hope) give a boost to those who are trying to preserve the river for its natural and historic interest, and prevent it from being spoiled by dams and sewers and treeless housing developments. Wherever possible I have quoted the early explorers' descriptions of the aboriginal scene and the wildlife: the great oak forests and groves of cherry and chestnut trees; the abundance of fish, deer, elk, buffalo, geese, swans, passenger pigeons, and wild turkeys—nearly all of which are now either extinct or scarce in the Potomac region.

The theme of the book is adventure—the adventure of exploration and discovery, and of fighting, chasing, or living among the Indians. This is not a history of the expansion and development of colonial civilization. As soon as the Potomac valley begins to fill up with settlers it is time to move farther up river, to go "out yonder" with the explorers, frontiersmen, and Rangers (always with a capital R) and see what lies beyond the falls of Potomack, or beyond the Blue Ridge, or find out what mischief the Indians are up to.

Each chapter is a complete story written with imagination and with some element of mystery or danger; not just a compilation of facts and probabilities arranged in chronological order. I have tried to tell the stories in such a way as to make the reader feel that he is out on the wild frontier, and not in some dusty archive. In doing so, I have taken certain liberties which would probably be frowned upon by some professional historians; I have sometimes ventured to cross the shadowy border between the science of history and the art of writing in a free narrative style. If this needs any justification, the critic is referred to Winston

Churchill's remark (in *A History of the English Speaking Peoples*, volume I, page 60) about a tale of King Arthur: "It is all true, or it ought to be; and more and better besides." Nevertheless, *Pioneers of the Potowmack* is the result of a good deal of research—some of the verified facts in it will be news to specialists in Maryland and Virginia history—and the stories are as true as I know how to tell them, considering the antiquity and the sketchiness of the original sources.

Having written and re-written the book at least four times, and being impatient to see it in print, I decided to try an experiment. Instead of sending the lone manuscript to one publisher after another and waiting on pins and needles for the verdict, as I had done with earlier drafts, I typed this one very carefully, stuck the maps and pictures in their proper places, and sent it to University Microfilms for 150 offset copies. The finished product arrived 21 days later, beautifully printed and bound in a gray-green paper cover.

Several copies of this rare first edition will be sent out to run the literary gauntlet and see if they can survive the tomahawks and scalping knives of editors, critics, librarians, and publishers; some will be given to friends and relatives; and the rest—about 100 copies—will go on sale for \$4.00 a copy at the Artists' Mart, 1361 Wisconsin Ave., N.W.; and the Francis Scott Key Bookshop, 28th and O Streets N.W.; both in Washington, D.C. □

H. P. Hobbs, Jr., was graduated from Georgetown University School of Foreign Service in 1942, and after attending the Army Japanese Language program at the University of Michigan, served in the military intelligence section of General MacArthur's headquarters in Tokyo with the rank of Captain.

When we first saw *Pioneers of the Potowmack* we were impressed by the cleanliness of the manuscript, which was an indication of the meticulous care with which the book had been prepared. His pen-and-ink sketches and maps add additional interest to this collection of historical vignettes of the Potomac. We thought that readers of *MICROCOSM* might be interested in Mr. Hobbs' method of trial publication and he kindly consented to write a few words about his book for us.

DOCTORAL RESEARCH MATERIALS ON FILM

Two of the periodicals in UM's English Literary Periodical series have been the subject of recent doctoral dissertations. Both were written at the University of North Carolina.

Roy Aycock's title is *A Study of Arthur Murphy's "Gray's-Inn Journal" (1752-1754)*. Ask for no. 60-4824 for the microfilm (\$2.95) or enlarged by xerography (\$10.35).

Alice Love's *A Study of the "Plain Dealer" (1724-25)* is our number 60-4846 (\$2.85 for the microfilm; \$9.90 for the Xerox).

The cost of the research materials? Just \$5 for each periodical on microfilm.

ARE YOUR MICROFILMS SCRATCHED?

By Eugene Power

Recently I had an opportunity to visit one of the great libraries of this country, and in the course of the visit we went up to their microfilm room where they had twelve reading machines, most of them in use. On these machines were, with but one exception, various issues of the New York Times which we had produced during the past twelve years, so I looked over the shoulders of the readers.

To say that I was shocked at what I saw is to put it mildly. The image was seriously defective because of long parallel scratches - some of this on microfilm only six months old.

The reason was soon obvious. Six of the reading machines were of the Eastman Model C type with a glass screen and variable enlargement ratio. This type of reader has a retractable bottom pressure plate which pulls away from the top plate when the film is advanced. Every one of these machines was out of adjustment to the extent that the plates did not retract when the film was moved.

Consequently the film was pulled through between the tight flats, resulting in scratches the length of the film.

From the point of view of permanence of the base and the image, properly prepared microfilm is the equal of any reproduction medium we have. However, in order to be an effective medium a certain amount of care and precaution is necessary in its storage and use. The following suggestions will perhaps be of value in checking your own conditions:

1. With a Model C microfilm reader be sure the pressure plates retract when the film is moved.
2. With an MPE reader make sure that there are two spacers between the glass flats.

3. Regardless of the type of reading machine used dust is damaging, and it must be kept clean and free of dust at all times. Keep the condensing and projection lenses clean. These may become covered with dust, or they may gradually acquire a film from oil heating. Both conditions will cut down the sharpness and the brilliance of the image.

4. Avoid getting any finger marks on the emulsion surface of microfilm, especially if the hands are damp. A perspirey fingerprint will destroy the image in a relatively short time. Film should always be handled by the edge.

5. Microfilm becomes brittle if stored in a dry atmosphere. On the other hand, when the humidity returns the film regains its flexibility. The conditions which exist in most libraries in the Temperate Zone in the United States are satisfactory for the storage of safety base microfilm. There are some storage cabinets which provide for the humidification and there is no objection to the use of these provided the humidity does not go above 60% accompanied by high temperature. However, excessive humidity can be more damaging than lack of it because fungus may grow on the emulsion and old-style metal reels will rust.

6. A little time spent on instructing the users of microfilm on the proper use of the reading machine will pay big dividends. They should be taught to treat the machine properly, to handle the film carefully, to rewind it back onto the original reel when finished, to keep the film off the floor where it can pick up dust, and to report any tears or damage to the film so that they may be properly repaired before the next user withdraws the film.

There is no medium that cannot be damaged. Books can be torn or pages can be cut out, and microfilm, too, can be damaged. What is necessary is a respect for our mediums of communication for written, printed or photographic knowledge.

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